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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/677,502	10/02/2000	Yoshio Hashibe	0694-134	4484

7590 12/03/2001

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EXAMINER
SERGENT, RABON A

ART UNIT	PAPER NUMBER
1711	5

DATE MAILED: 12/03/2001

Please find below and/or attached an Office communication concerning this application or proceeding.

AS-5

Office Action Summary

Application No.	Applicant(s)
09/677,502	Hashibe et al.
Examiner	**Art Unit**
Rabon Sergent	1711

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *three* MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136 (a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1) ☒ Responsive to communication(s) filed on *Aug 15, 2001* .

2a) ☒ This action is **FINAL.** 2b) ☐ This action is non-final.

3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

Disposition of Claims

4) ☒ Claim(s) *1-10* is/are pending in the application.

4a) Of the above, claim(s) _____ is/are withdrawn from consideration.

5) ☐ Claim(s) _____ is/are allowed.

6) ☒ Claim(s) *1-10* is/are rejected.

7) ☐ Claim(s) _____ is/are objected to.

8) ☐ Claims _____ are subject to restriction and/or election requirement.

Application Papers

9) ☐ The specification is objected to by the Examiner.

10) ☐ The drawing(s) filed on _____ is/are objected to by the Examiner.

11) ☒ The proposed drawing correction filed on *8/15/01* is: a) ☒ approved b) ☐ disapproved.

12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. § 119

13) ☒ Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d).

a) ☒ All b) ☐ Some* c) ☐ None of:

1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____ .
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

*See the attached detailed Office action for a list of the certified copies not received.

14) ☐ Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).

Attachment(s)

15) ☐ Notice of References Cited (PTO-892)

16) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

17) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s). _____

18) ☐ Interview Summary (PTO-413) Paper No(s). _____

19) ☐ Notice of Informal Patent Application (PTO-152)

20) ☐ Other:

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

2. Claims 1-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Friedman et al. ('704) in view of Terneu et al. ('687).

Friedman et al. disclose the production of fire screening protective glazing laminates wherein a layer of polymeric material, which corresponds to that of applicants, is sandwiched between layers of fireproof glass plates. Friedman et al. further disclose that the glass plates may be surface treated with materials which yield heat reflectance. See abstract and column 6, lines 18-29.

3. Friedman et al. are silent with respect to the surface treatments which may be applied to the glass; however, materials, such as doped tin or indium oxides, were know to be useful for such applications at the time of invention. This position is supported by Terneu et al. See abstract. Additionally, Friedman et al. fail to disclose the double glazing limitation of claim 8; however, the use of double glazing to enhance insulation characteristics of glass panels was a known and conventional technique at the time of invention. This position is supported by Terneu et al. See figures and column 6, line 11.

4. Therefore, the position is taken that one seeking a non infrared emissive material would have been motivated to utilize known heat-ray reflecting materials on the glass plates of Friedman et al., so as to arrive at the instant invention. Furthermore, it would have been obvious to utilize such known techniques as double glazing, so as to improve the insulation characteristics of the glass panels.

5. The examiner has carefully considered the arguments set forth within the response of August 15, 2001; however, the rejection has been maintained. Applicants' have argued that the combined teachings of Friedman et al. and Terneu et al. fail to render the heat reflection film characteristic obvious. In response, the secondary reference discloses the use of doped tin oxides and/or doped indium oxides as coatings for reducing the transmission of infra-red radiation through glass panels. Since the infra-red reflective coatings appear to encompass those of applicants and are used in thicknesses which meet those of applicants, one would have reasonably expected these coatings to perform equivalently to those of applicants. Alternatively,

one of ordinary skill would have been motivated by the teachings of the secondary reference and the teaching within the primary reference at column 6, lines 24-27, that heat reflecting surface treatments may be used, to utilize the claimed heat reflecting films with the teachings of the primary reference, so as to obtain the claimed fire-protection glass.

6. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

Any inquiry concerning this communication should be directed to R. Sergent at telephone number (703) 308-2982.

RABON SERGENT
PRIMARY EXAMINER

R. Sergent/om
October 31, 2001